REMARKS

Claims 1, 11, and 17 have been amended. Claims 1 through 19 remain in the application.

The drawings were objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they include reference character "32" not mentioned in the description.

Attached to this Amendment is a corrected drawing sheet for Figure 3 with the reference numeral "32" deleted. It is respectfully submitted that the drawings overcome the objection and are acceptable.

Claims 1 through 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by Walacavage (U.S. Patent No. 6,442,441). Applicants respectfully traverse this rejection.

U.S. Patent No. 6,442,441 to Walacavage discloses a method of automatically generating and verifying programmable logic controller code. The method includes the steps of constructing a neutral control model file, determining whether the neutral control model file is correct and generating programmable logic controller (PLC) code if the neutral control model file is correct. The method also includes the steps of verifying whether the PLC code is correct and using the PLC code by a PLC to build a tool if the PLC code is correct. Walacavage does not disclose replicating a motion of a mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator.

In contradistinction, independent claim 1, as amended, clarifies the invention claimed as a method of emulating machine tool behavior for a programmable logic controller logical verification system for manufacturing a motor vehicle. The method includes the steps of constructing a mechanical model, viewing motion of the mechanical model in a motion viewer,

and determining whether the motion of the mechanical model is acceptable. The method also includes the steps of replicating the motion of the mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator. Independent claim 11 has been amended similar to claim 1 and includes other features of the present invention.

A rejection grounded on anticipation under 35 U.S.C. § 102 is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A. 1972); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

Walacavage '441 does not disclose or anticipate the claimed invention of claims 1 through 19. Specifically, Walacavage '441 merely discloses a method of automatically generating and verifying programmable logic controller code by generating programmable logic controller (PLC) code if a neutral control model file is correct, verifying whether the PLC code is correct, and using the PLC code by a PLC to build a tool if the PLC code is correct. Walacavage '441 lacks replicating a motion of a mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator. In Walacavage '441, there is a special purpose viewer or motion player such as VisLine, but there is no PLC emulator to play

the PLC code such that the user can observe the motion of the mechanical model using the actual PLC code as if they were watching a machine or manufacturing line of a vehicle assembly plant floor.

Walacavage '441 fails to disclose the combination of a method of emulating machine tool behavior for a programmable logic controller logical verification system for manufacturing a motor vehicle including the steps of constructing a mechanical model, viewing motion of the mechanical model in a motion viewer, determining whether the motion of the mechanical model is acceptable, replicating the motion of the mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable, and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator as claimed by Applicants. Therefore, it is respectfully submitted that claims 1 through 19 are allowable over the rejection under 35 U.S.C. § 102(e).

Based on the above, it is respectfully submitted that the claims are in a condition for allowance, which allowance is solicited.

Respectfully submitted,

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